Monthly Update: Forest Certification and the Path to Sustainable Forest Management

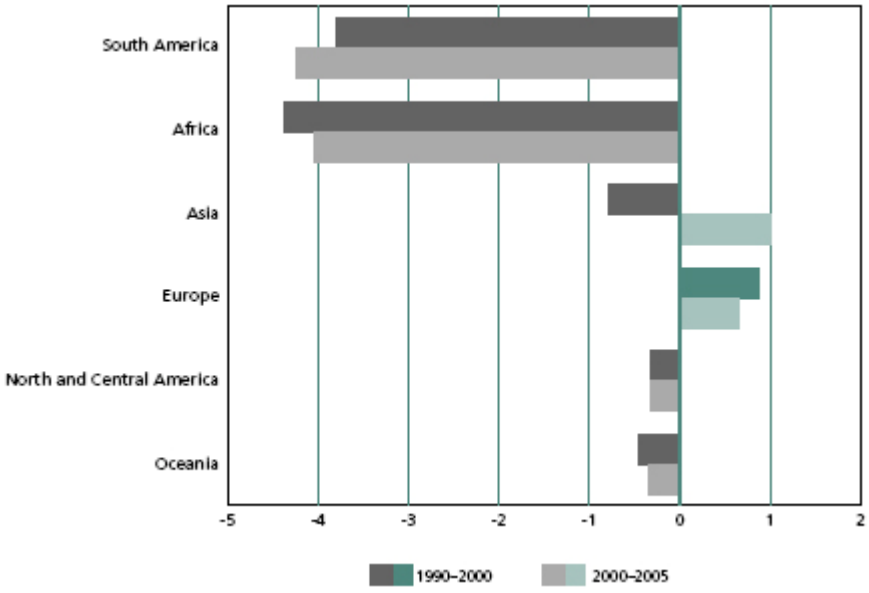
By Crystal Davis on Wednesday, February 7, 2007.

Between 2000 and 2005, 73,000 square kilometers (~28,000 square miles) of forest--an area approximately the size of Panama, Sierra Leone, or Ireland--were destroyed each year (FAO, 2005). The Millennium Ecosystem Assessment (MA) reports that 54 countries have lost 90 percent or more of their forest cover. Encouragingly, deforestation rates in Europe, North America, and China have slowed in the past decade due to reforestation and afforestation initiatives. However, rapid deforestation continues in the tropical regions of South America, Africa, and Asia, where socio-economic and political problems present formidable challenges to forest conservation.

Deforestation can rarely be attributed to a single cause. Rather, it is often the result of many factors acting simultaneously on a given forest. There are three main direct drivers of deforestation:

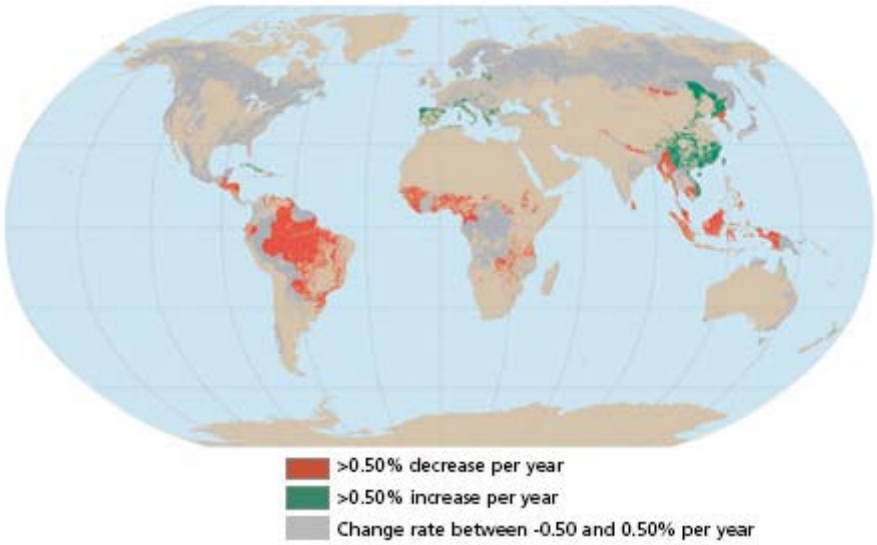
- **Agricultural expansion** leads to the conversion of forests into permanent crops or pasture and is the primary driver of deforestation, implicated as a factor in 96 percent of forests assessed by Geist and Lambin (2002).
- **Infrastructure expansion** was a driver in 72 percent of cases and includes road development and encroachment of human settlements. This issue is particularly acute in Latin America and is also the driver of urban sprawl in the United States.
- **Wood extraction** was a factor in 67 percent of cases studied. Whereas industrial logging is the primary issue in Asian countries, domestic fuelwood gathering is a significant driver in Africa.

Figure 1: Net Change in Forest Area by Region (million hectares per year)



Source: Food and Agriculture Organization (FAO), 2005. *Global Forest Resources Assessment 2005*.

Figure 2: Annual Percent Change in Forest Area 2000-2005



Source: FAO, 2005. *Global Forest Resources Assessment 2005*.

Understanding Sustainable Forest Management (SFM)

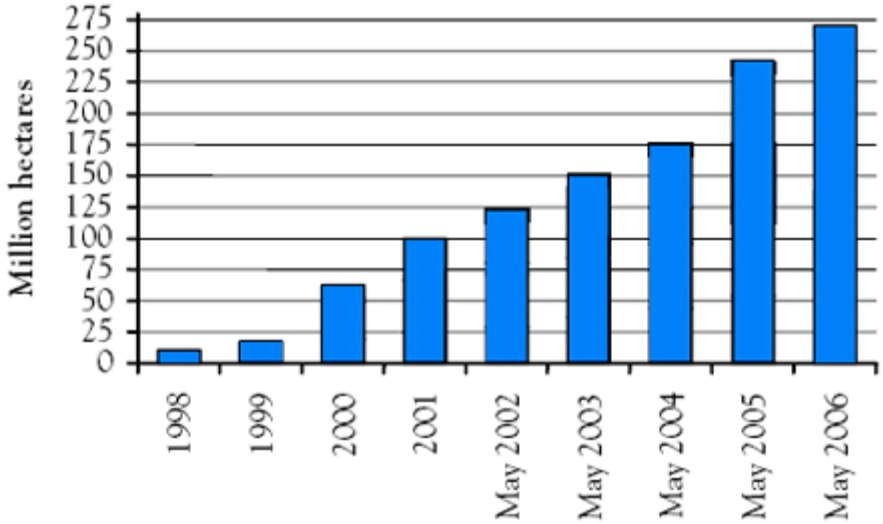
Maintaining healthy forests--and the valuable goods and services they provide--will require widespread adoption of sustainable forest management (SFM) practices that protect ecological and social interests while promoting long-term economic profitability. Sustainability may be realized through various means, and there has been significant international debate as to the requirements for and best approaches to SFM. Potential options include country-led forest governance initiatives and regulations, international policy interventions, or technological solutions.

The emergence of forest certification in the early 1990s reflects a promising new approach to SFM. Unlike traditional regulatory systems, certification is driven by market forces and economic incentives (i.e. consumer demand for certified products). Importantly, certification schemes offer international standards that define sustainability. These include environmental concerns like maintaining biodiversity and ecological functions and social issues such as upholding the rights of local people who depend on forest resources for their livelihoods and survival. Furthermore, by demanding a sustainable rate of harvesting, certification promotes the existence of forests for future generations.

Setting and Enforcing Standards through Forest Certification

Approximately 7 percent of the world's forest area is certified--nearly a five fold increase since 2000 (UNECE/FAO, 2006). The two largest certification organizations, with 28 and 26 percent of global certified forest area respectively, are the Forest Stewardship Council (FSC), a membership organization dedicated to sustainable development principles, and the Pan-European Forest Certification Framework (PEFC), a voluntary initiative led by the forest industry to promote an internationally credible certification framework. Both organizations develop principles and criteria for SFM using widespread stakeholder participation and accredit third-party auditors to verify compliance through annual audits. Certifiers may issue a Forest Management Certificate for forest stewards or a Chain-of-Custody Certificate for forest product manufacturers and distributors. Consumers can then identify certified wood products through a certification logo.

Figure 3: Global Growth in Certified Forest Area

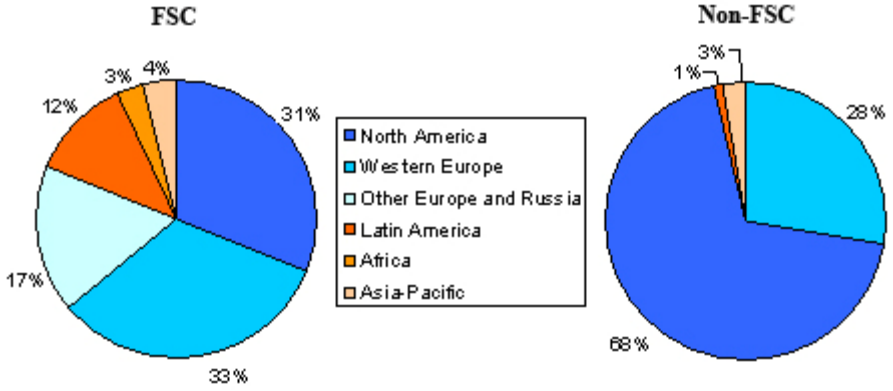


Source: FAO/United Nations Economic Comission for Europe (UNECE), 2006. *Forest Products Annual Market Review, 2005-2006.*

Forest Certification in Developing Countries

Although the early proponents of forest certification hoped to target tropical deforestation, the temperate and boreal forests of industrialized countries account for 87 percent of all certifications (UNECE/FAO, 2006). Even the FSC, which places the greatest emphasis on developing countries (see Figure 4), struggles in this regard. Some argue that this is because certification is not conducive to forest management schemes involving communities or small enterprises, which are typical in developing countries (MA, 2005). However, tropical forest certifications in the developing world are continuing to grow, with six new countries added by the FSC in Asia and Africa during the past year (FSC, 2006).

Figure 4: Distribution of Certified Forest Area by Region in 2006



Source: EarthTrends, 2007 from UNECE/FAO, 2006.

Challenges to Forest Certification

Global forest certification faces a number of challenges. First, the proliferation of various certification schemes has created a problem of credibility, which is leading to consumer confusion and industry resistance. Secondly, some criticize that strict certification standards (particular those of the FSC) have created competition only among those already practicing sustainable management, leaving few incentives for unsustainable producers to change their behavior. Finally, a dearth of consumer demand for certified wood has resulted in insufficient price premiums, thereby reducing market incentives for industry to bear

the additional cost of achieving certification. This is reflected in the fact that the vast majority of certified wood products are sold without a certification label (FAO/UNECE, 2006).

In an attempt to address these problems, both major certification systems have recently introduced mechanisms that allow non-certified wood to be sold together with certified wood under a mixed sources label, provided it meets certain basic requirements of acceptable forest management. Although it is too early to assess the impact of this reform, it is intended to extend the positive effects of certification into areas with greater forest management problems.

Consumer Action

The human pressure on the world's forests is likely to grow. Despite a rapid transition in recent decades to an "electronic age," the consumption of forest products (e.g., paper, roundwood, woodfuel) continues to increase, particularly in developing countries as their economies expand in size and complexity. Per capita paper consumption in China is only one tenth of that in the United States--the potential for growth is enormous. Furthermore, rising energy prices will stimulate increased demand for biofuels, which require forests or converted forest land for production.

New production forms and more efficient consumption patterns are needed to satisfy the world's growing appetite for wood. Recycling is certainly an important component of reducing overall demand (paper product recycling rates in both the U.S. and Europe are at around 50 percent), but it is not a catch-all solution since forest products can not be recycled indefinitely nor does it make economic or environmental sense to recycle all such products. On the supply side, intensively managed tree plantations will increasingly supplement natural forests. Improved forest governance and greater demand for certified forest products are also needed to ensure that production is sustainable. A combination of such efforts could go a long ways toward curbing worldwide deforestation, maintaining the health of forest ecosystems, and, consequently, promoting human well-being.